

## Chapter 2. Installing and Starting HAZUS

### 2.1 System Requirements

In order for **HAZUS** to run properly, your system must meet certain minimum requirements.

#### 2.1.1 Minimum System Configurations

- System must contain a Pentium class CPU (400 MHz or better recommended)
- 32 MB of (RAM) memory (64 MB are recommended)
- 1 GB of free disk space (2 GB are recommended)<sup>2</sup>
- A color graphics card and monitor (SVGA is recommended)
- A mouse
- A CD-ROM reader

#### 2.1.2 Software Requirements

- Windows 95, Windows 98 or Windows NT installed<sup>3</sup>
- ESRI ArcView 3.1 or ArcView 3.2 installed

ArcView can be purchased by contacting the ESRI Incorporation at 1-800-447-9778. ArcView and Windows products should be installed using the manufacturer's instructions.

### 2.2 Installation

Before installing **HAZUS**, the minimum requirements listed in Section 2.1 should be met. If you are upgrading from **HAZUS97**, read the section at the end of this chapter entitled "Upgrading from **HAZUS97** to **HAZUS99**".

To install **HAZUS**, follow the steps outlined below.

1. Start Windows.
2. Insert **HAZUS** CD in your CD-ROM drive. It is likely that your CD-ROM drive will be drive D:.
3. From the Windows **Start** menu select **Run...** The following screen will appear.

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<sup>2</sup> **HAZUS** makes extensive use of the hard disk for reading and writing its intermediate database files. For this reason, disk space is very important. The required free disk space is a function of the size of the study region being analyzed. A typical study region requires a 20 MB of disk space but can be as large as 1 GB (1,000 MB).

<sup>3</sup> NT version 4.0 or later is required.

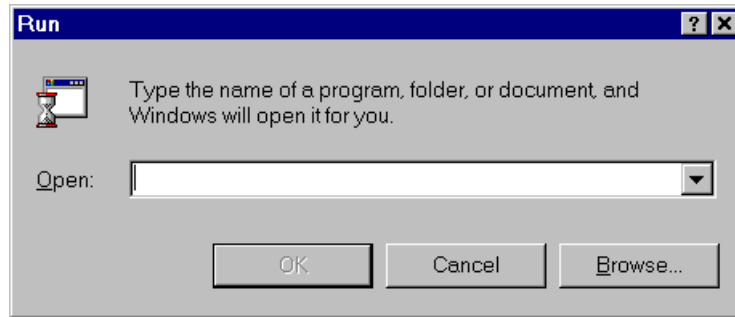


Figure 2.1 The Run command dialog box.

1. To start the **HAZUS** setup program type **x:\setup** in the command line box as shown in Figure 2.2, where **x** is the CD-ROM drive letter. Press Enter or click the **OK** key.

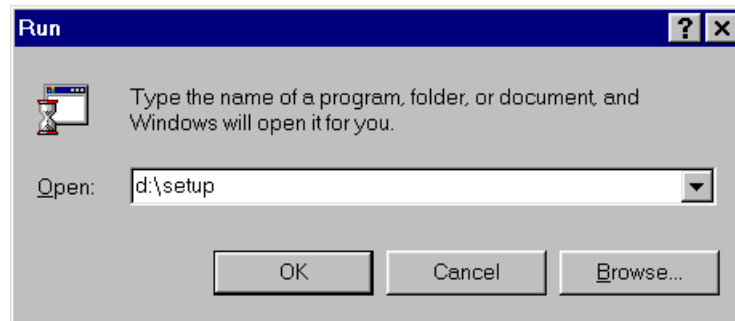
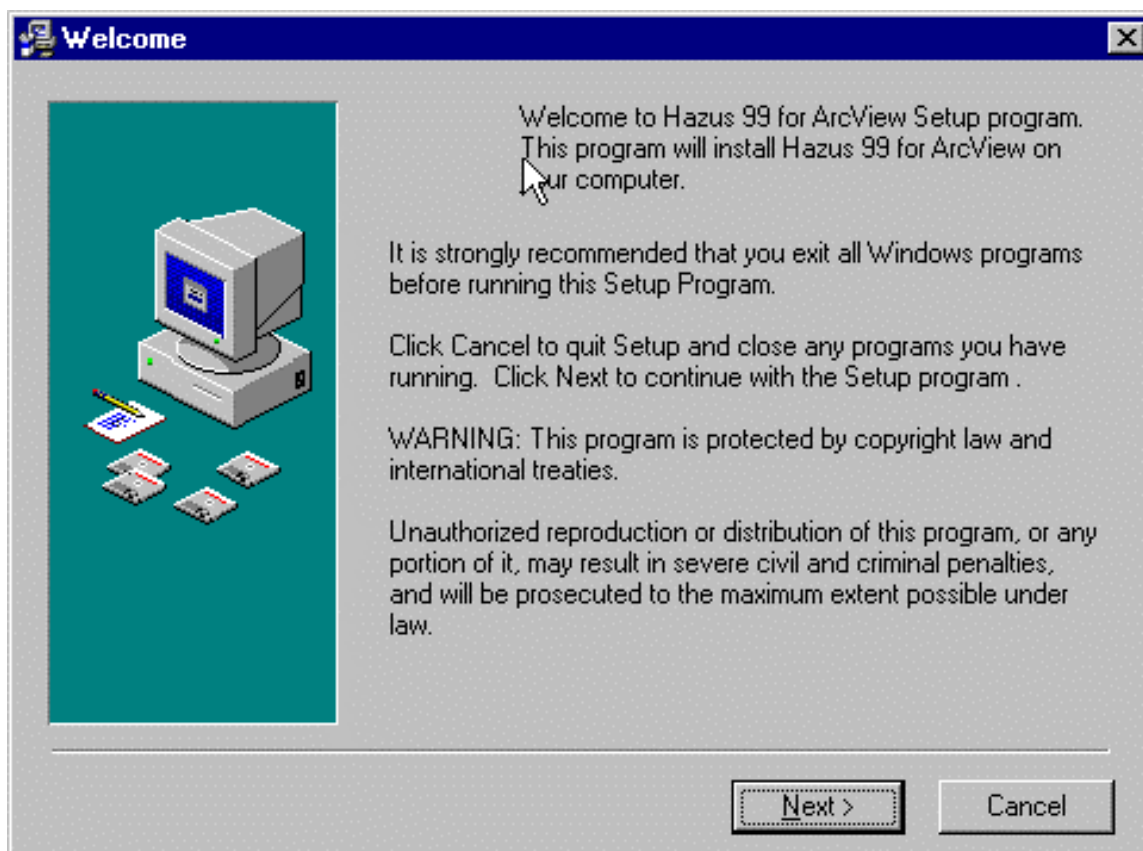


Figure 2.2 Starting the HAZUS setup program.

2. After you start the setup program as shown in Figure 2.2, the dialog box in Figure 2.3 will appear. Click on the **N**ext button.



**Figure 2.3 Starting the HAZUS installation program.**

3. Specify the directory where you wish **HAZUS** to be installed. The default directory is C:\Program files\HAZUS99 for ArcView as shown in Figure 2.4. If you accept the default destination directory, click on the **N**ext button. Otherwise click on the Browse button at which an interactive “Select Destination Directory” will appear as shown in Figure 2.5. You can select or type-in a new directory path and click on **OK**. You will be returned to the original “Select Installation Directory” window and the directory that you have selected will appear in the middle of the window. Click the **N**ext button.

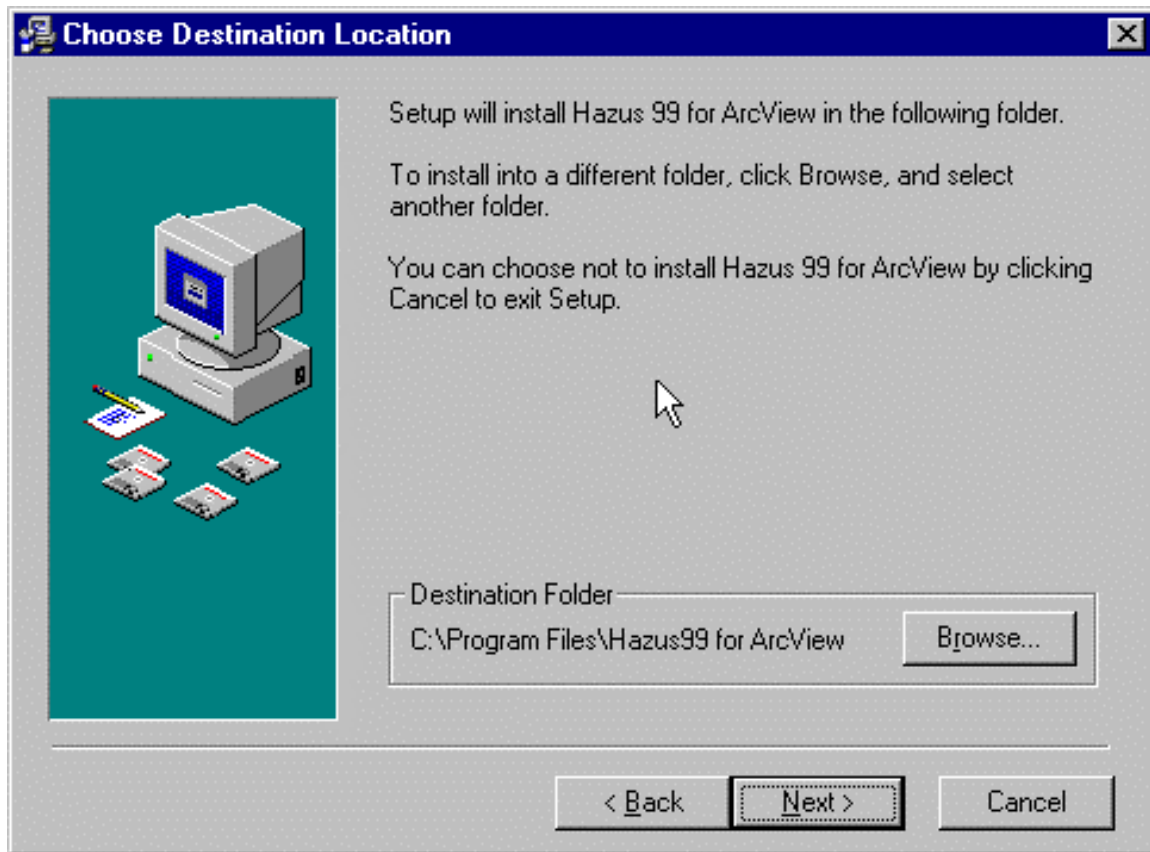


Figure 2.4 Specifying the path of the HAZUS directory.

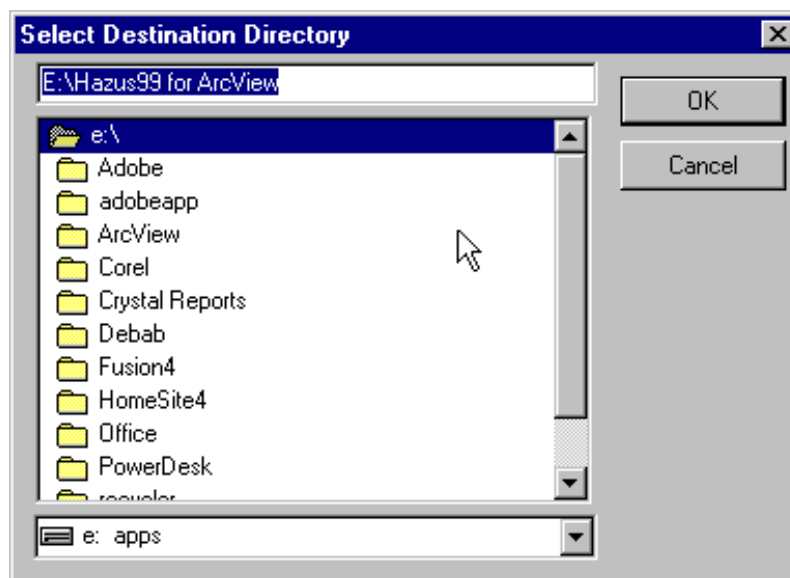
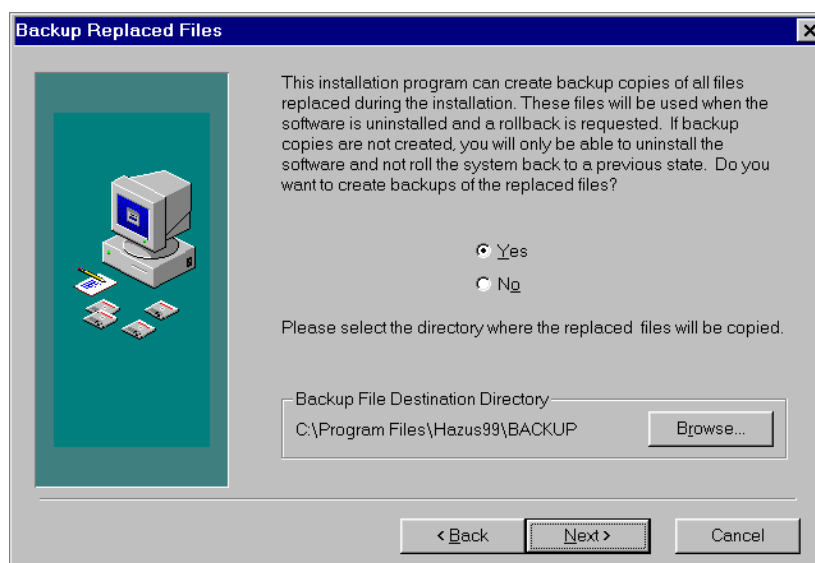


Figure 2.5 Specifying the path of the HAZUS directory interactively.

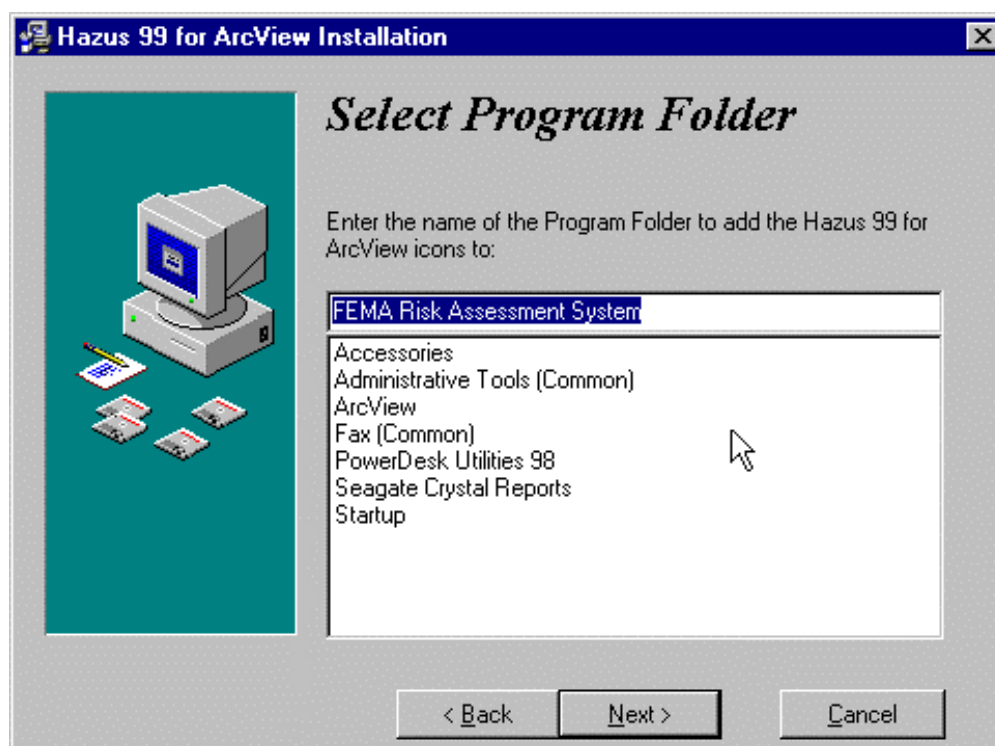
4. If you already have **HAZUS** installed on your machine under the same path you have specified for installation, you will be prompted with a window that will ask you if you are interested in creating backup files of the files that will be replaced

during the new installation as shown in Figure 2.6. If you have any data or regions that you have added or created and you don't want to lose them then you should choose **Yes**. After making your selection click **Next**.



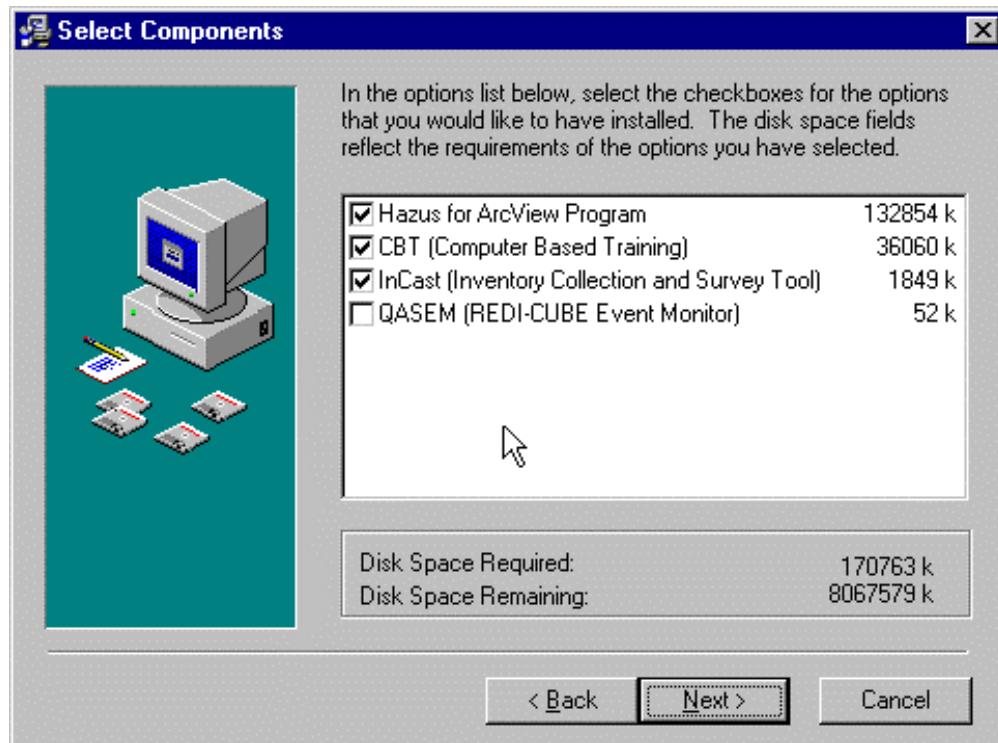
**Figure 2.6 Creating backup files.**

5. Choose a name for the **HAZUS** Program Folder as shown in Figure 2.7. The default name is **FEMA Risk Assessment System**. If you accept that name click **OK**, otherwise you can change it to a more suitable name for you.



**Figure 2.7 Specifying the name of the HAZUS program folder.**

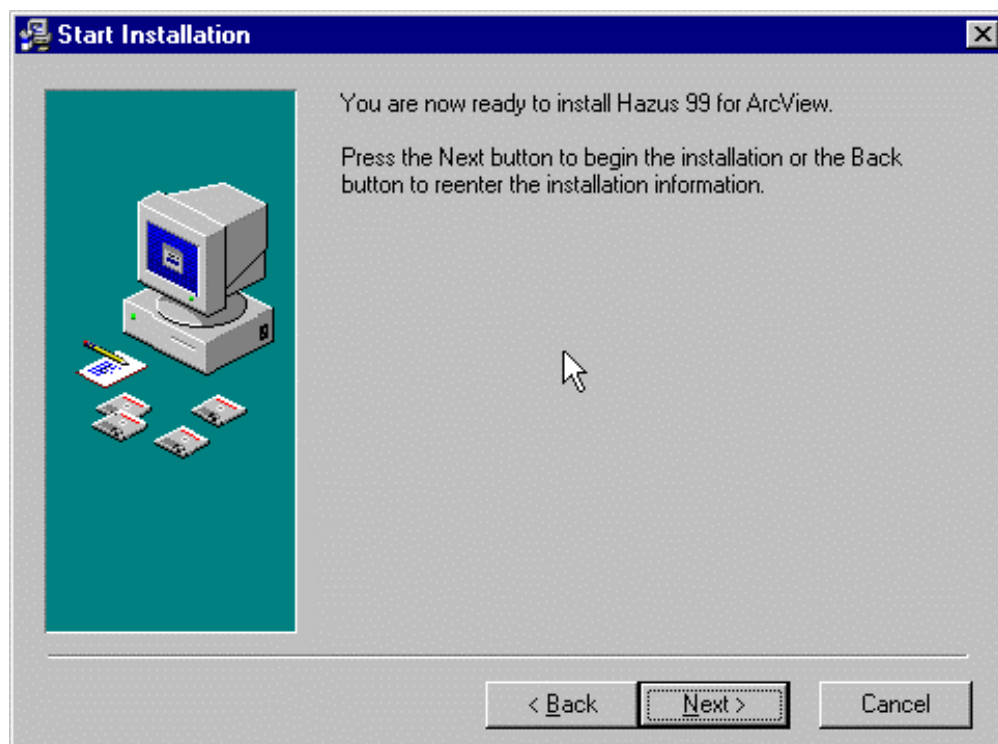
6. A list of the programs that you can install will appear as shown in Figure 2.8. Choose the program (s) that you would like to be installed from the components list by checking the box next to each program name.



**Figure 2.8 Choosing a program (s) for installation.**

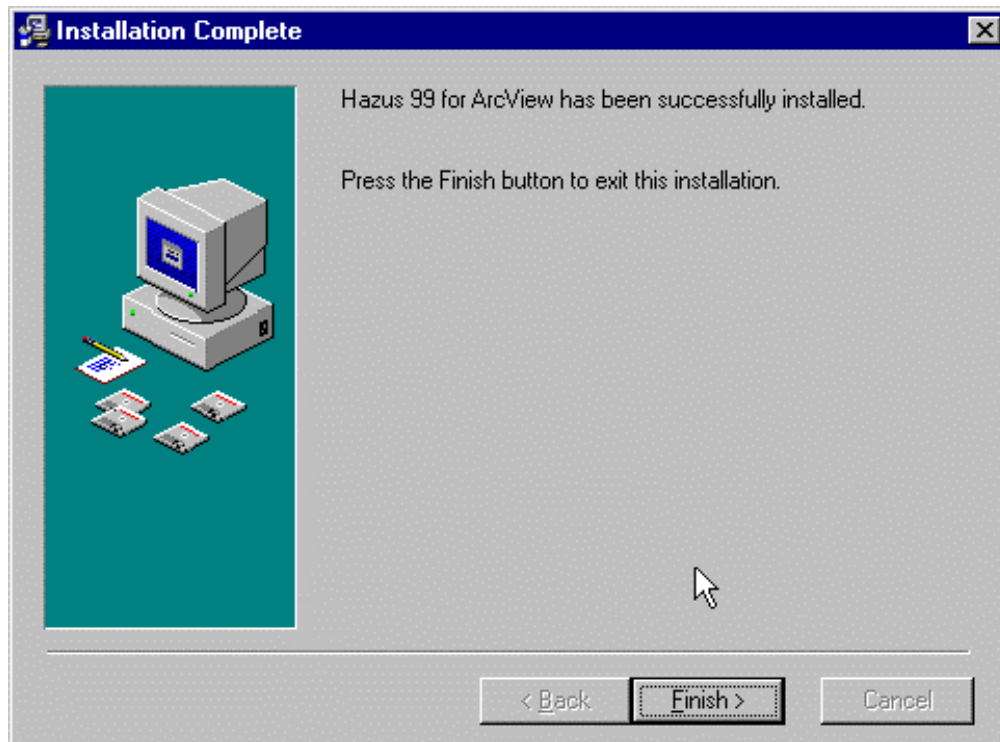
Here is a brief description of the different components:

- **HAZUS** Program is the main component, which you need to install at least once.
  - **CBT** is the Computer-based tutorial, i.e. a program that teaches **HAZUS** interactively. If you are new to **HAZUS**, this is highly recommended.
  - **InCAST** is a stand-alone tool to use for collecting inventory data in a format compatible with the **HAZUS** format.
  - **QASEM** is a tool that is useful in the regions that have the REDI-CUBE system available (currently, this is limited to California). Given a REDI-CUBE system installed on the target machine, when an earthquake occurs, QASEM automatically launches **HAZUS**, creates a region and runs the event automatically.
7. Windows will prompt with a last **Ready to Install** window as shown in Figure 2.9. Click on the **Back** button to go back to any of the previous windows and change the previous selection. If everything is O.K., click the **Next** button.



**Figure 2.9 Ready to Install window.**

8. It will take four or five minutes for the program to install. When the installation is complete the dialog box shown in Figure 2.10 will appear and **HAZUS** program icon will automatically be created on your desktop. Click **Finish** to return to the Windows Setup.



**Figure 2.10 Dialog box indicating successful HAZUS installation.**

### **2.3 Upgrading from HAZUS97 to HAZUS99**

This current version of **HAZUS (HAZUS99)** added many new features and enhancements that required a change in the format of the study region tables.

If you are a current user of **HAZUS97** and you have invested considerable time in customizing your study region(s), and you prefer to use your customized regions in **HAZUS99** instead of recreating them, then follow the steps below:

1. Before installing **HAZUS99**, and from within **HAZUS97** export the study regions you would like to keep. The “Export” feature is accessible through the “Study Regions” dialog. When prompted for the destination path, it is recommended to select a folder outside the HAZUS folder.
2. Uninstall **HAZUS97** (refer to the next section for instructions). By design, the uninstall program does not delete any customized files or folders; therefore, all the study region(s) you created still remain on your hard disk. For extra safety, don’t delete them until later when you’re sure they are not needed.
3. Install **HAZUS99** as described above.
4. Launch **HAZUS99** and import the region(s) you exported in step 1. The “import” process will take care of translating the study region tables from **HAZUS97** format to the **HAZUS99** format.

It is important to note that only inventory data is translated to the new format. Analysis results tables are not converted. Re-run the analysis in **HAZUS99** to take advantage of the improved data and algorithms.

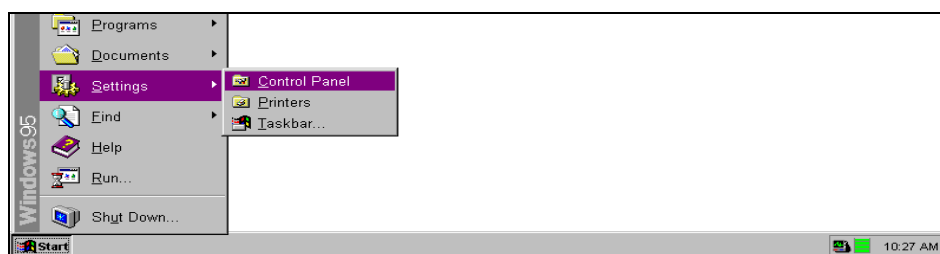


## 2.4 Starting the Program

The installation program described in Section 2.2 creates a **HAZUS** icon/shortcut on the computer's desktop. To start the program, double click on the **HAZUS** icon. In order to enter inventory or run an analysis, you must first create a study region. Creating a study region is discussed in Section 3.1.

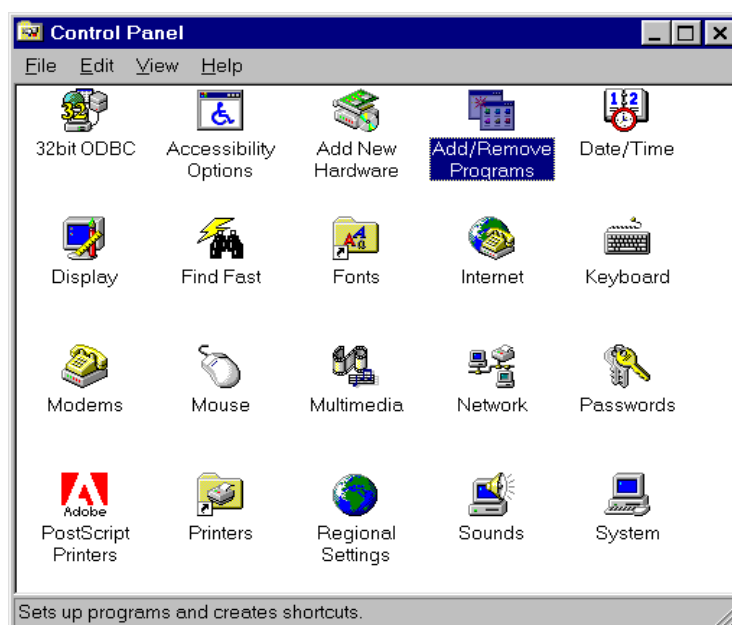
## 2.5 Uninstalling the Program

To uninstall **HAZUS** in Window 95 and Window NT, go to **Start|Settings|Control Panel** as shown in Figure 2.12.



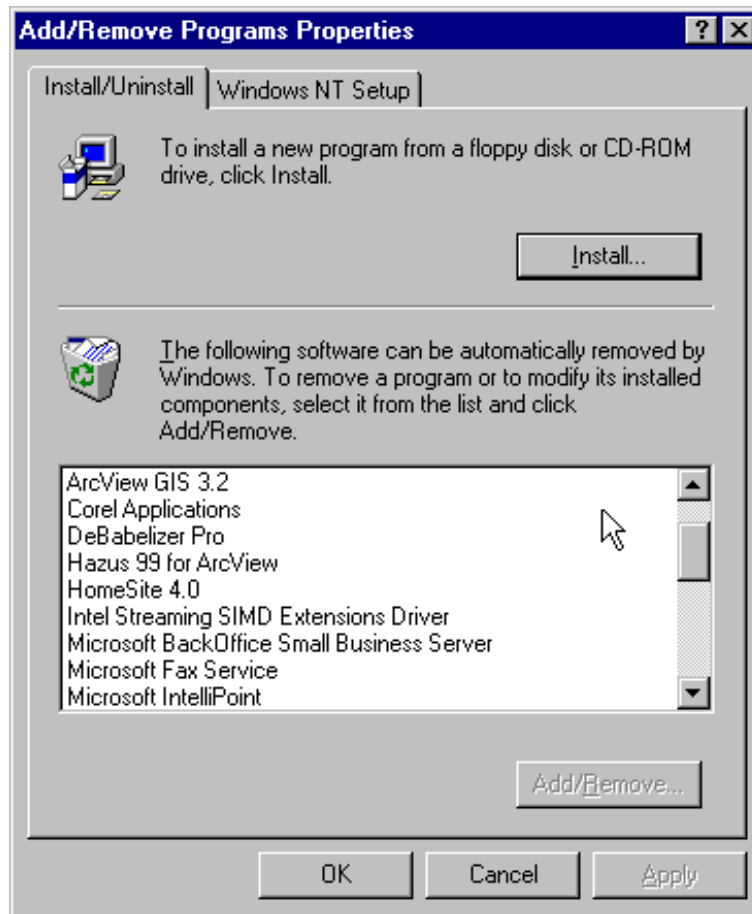
**Figure 2.12 Opening the Control Panel.**

From the Control Panel window, double click on **Add/Remove Programs** as shown in Figure 2.13.



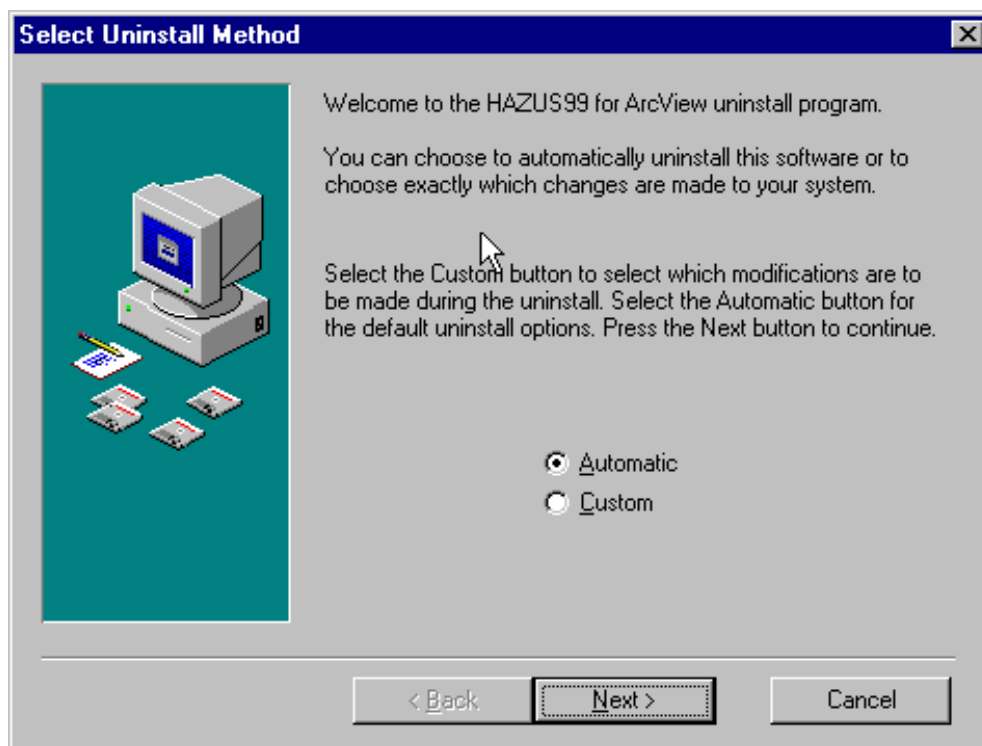
**Figure 2.13 Selecting from Control Panel window.**

You will be prompted with an **Add/Remove Program Properties** window as shown in Figure 2.14. From the **Install/Uninstall** tab, highlight **HAZUS99 for ArcView** and double click on **Add/Remove Programs**.



**Figure 2.14 Removing HAZUS program.**

You can perform an **Automatic** or **Custom** uninstall as shown in Figure 2.15. Select the **Automatic** uninstall method if you want to remove all **HAZUS** program files (except the study regions that you have created under **HAZUS** subdirectory); otherwise, you can use the **Custom** uninstall method and select only the directories that you would like to remove.



**Figure 2.15 Selecting an uninstall method.**

Before the program goes through the uninstall process, it prompts you one last time with a window that confirms your desire to uninstall the program as shown in Figure 2.16.

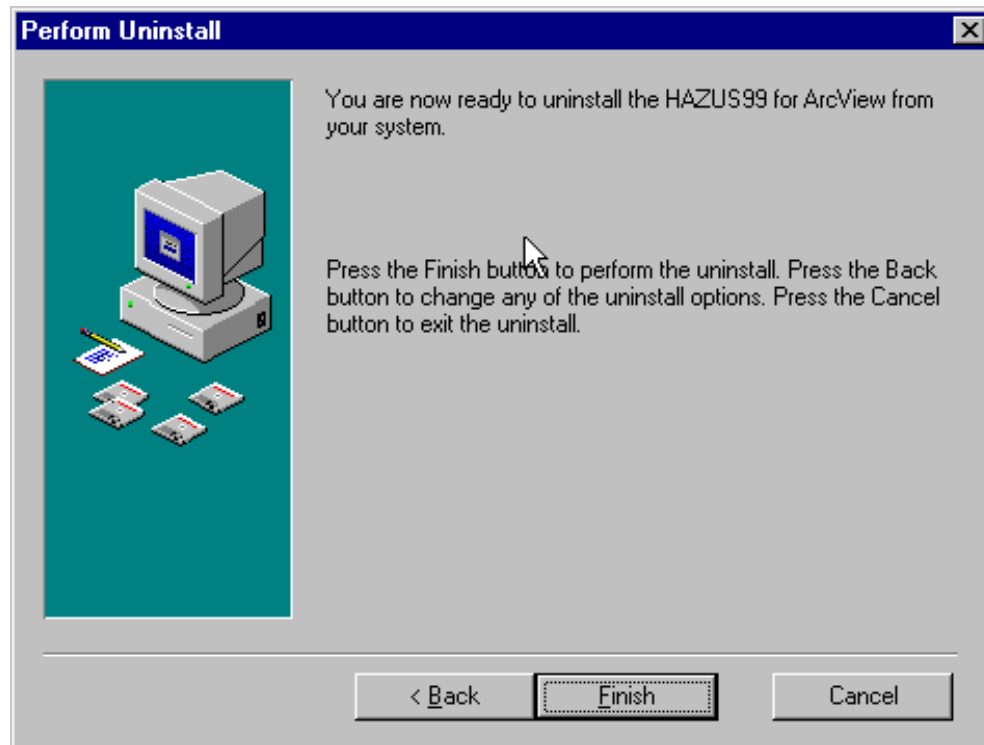


Figure 2.16 Uninstall confirmation window.

## 2.6 Program Basics

**HAZUS** is an ArcView-based program with a standard Windows interface that provides a familiar working environment. The user interface is comprised of a menu bar, tool bar and various screens and windows. These elements follow standard Windows conventions and allow you to manipulate and analyze data within **HAZUS**. This section briefly describes some of the features.

### 2.6.1 Menu Bar

After launching **HAZUS** and creating a study region (as will be explained in Chapter 6), a screen such as the one shown in Figure 2.17 will be used to control the software operation. The menu bar is displayed at the top of the screen. **Bold** menu items indicate that the items are available; grayed out menu items are not available.

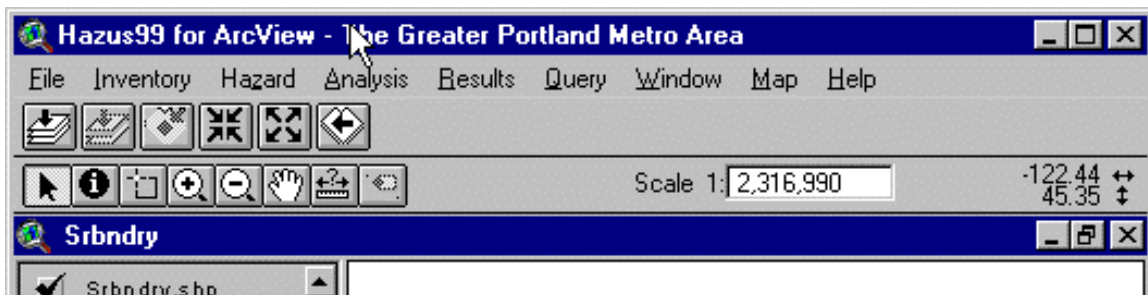


Figure 2.17 The menu bar in HAZUS software.

Menu items are organized according to their basic functionality as listed below:

FILE	Execute standard software actions such as open table, save and print.
INVENTORY	Add, modify, delete and copy inventory information.
HAZARD	Select hazard maps and the scenario event you wish to work with.
ANALYSIS	Modify the analysis data, parameters and assumptions.
RESULTS	Used to view and map analysis results.
QUERY	Locate multiple inventory items based on criteria you provide, and search for specific record information.
WINDOW	Basic GIS utilities menu.
MAP	Control of the map layers, modification of the map views, and “quick start option” for certain common maps.
HELP	The help system due to budget constraints is not available in the current version of <b>HAZUS</b> .

### 2.6.2 Tool Bar

A Tool bar is a set of buttons that execute commands by clicking on them. The standard **HAZUS** tool bar appears under the menu bar. Depending on the window that is currently open in **HAZUS**, the available tool bar options change. The tool bar buttons are used for object selection, zooming in or out, moving around maps, obtaining information, measuring distance and creating points. Details of the tool bar buttons can be found in the ArcView Manual. **Bold** buttons indicate that the buttons are available; grayed out buttons are not available.

